| In re United States | Patent Application of: | Docket No.: 4115-150 CIP DIV | | | |
|---------------------|---|---------------------------------|--------------|--|--|
| Applicant: | BRYANT, Joseph L., et al. | Examiner: | Not Assigned | | |
| Application No.: | 10/645,451 | Art Unit: | Unknown | | |
| Date Filed: | August 21, 2003 | Customer No.: | | | |
| Title: | HIV AND CD4 TRANSGENIC ANIMALS AND USES | | | | |
| | THEREOF | 23448 | | | |
| | | | | | |

FIRST CLASS MAIL CERTIFICATE

I hereby certify that I am mailing the attached documents to the Commissioner for Patents on the date specified, in an envelope addressed to the Mail Stop DD, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, and First Class Mailed under the provisions of 37 CFR 1.8.

Katrina Holland

November 19, 2003

Date of Mailing

INFORMATION DISCLOSURE STATEMENT

Mail Stop DD Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §1.56, the attention of the Patent and Trademark Office is hereby directed to the reference(s) listed on the attached PTO-1449.

Applicants submitted an Information Disclosure Statement on July 2, 2001 in the parent application U.S. Patent Application No. 09/658,256 filed on October 10, 2000. Copies of all references recited on the enclosed PTO Form 1449 have been previously submitted to the United States Patent and Trademark Office.

Applicants request that copies of the previously submitted references be transferred to the file folder of the present application.

Further, applicants have cited four new references that were cited in the parent application U.S. patent application No. 09/658,256 by Examiner Shukla in the February 28, 2002 Office Action, and copies of those references are enclosed (namely, references AC, AI, AJ and AK).

| | This Information Disclosure Statement is being filed within three months of the U.S. filing date OR before the mailing date of a first Office Action on the merits. No certification or fee is required. | | | | | | |
|----------|--|---|--|--|--|--|--|
| <u> </u> | This Information Disclosure Statement is being filed more than three months after the U.S. filidate AND after the mailing date of the first Office Action on the merits, but before the mailidate of a Final Rejection or Notice of Allowance. | | | | | | |
| | ☐ a. | I hereby certify that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. §1.97(e)(1). | | | | | |
| | □ b. | I hereby certify that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. §1.97(e)(2). | | | | | |
| | c. | Attached is our check no in the amount of \$ in payment of the fee under 37 C.F.R. §1.17(p). Please credit or debit Deposit Account No as needed to ensure consideration of the disclosed information. Two duplicate copies of this paper are attached. | | | | | |
| 3. | date and of the consider fee und | formation Disclosure Statement is being filed more than three months after the U.S. filing d after the mailing date of a Final Rejection or Notice of Allowance, but before payment Issue Fee. Applicant(s) hereby petition(s) that the Information Disclosure Statement be ered. Attached is our check no in the amount of \$180.00 in payment of the petition ler 37 C.F.R. §1.17(i)(1). Please credit or debit Deposit Account No as needed to consideration of the disclosed information. Two duplicate copies of this paper are d. | | | | | |
| | ☐ a. | I hereby certify that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. §1.97(e)(1). | | | | | |
| | □ b. | I hereby certify that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement 37 CFR §1.97(e)(2). | | | | | |

Respectfully submitted,

Marianne Fuierer

Reg. No. 39,983 Attorney for Applicants

INTELLECTUAL PROPERTY/ TECHNOLOGY LAW Telephone: (919) 419-9350 Fax: (919) 419-9354 Attorney Ref: 4115-150 CIP DIV

| | | | 26 | | | I | | |
|--|--|---|---------------------------|---------------------------------|--------------|----------------|-------------|--------------|
| | | US Dept. of Commerce | | ATTORNEY DOCKET NO. | | SERIAL NO. | | |
| Patent and Trademark Office | | 4115-150 CIP DIV | | 10/645,451 | | | | |
| (NOV 2 1 2003) | | | | | l | | | |
| | | \ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | <i>[5]</i> | APPLICANT | | | | |
| INFORMATION DISCLOSURE STATEMENT | | | BRYANT, Joseph L., et al. | | | | | |
| , | | | DEIMAR | DV DVG DAME | | | | |
| (us | se seve | ral sheets if neces | sary) | FILING DATE | | GROUP | | |
| | | | | August 21, 2003 | | Unknown | | |
| | | | U.S. | PATENT DOCUMENTS | | | | |
| EXAMINER | | PATENT | | | | | | ING DATE |
| INITIAL | | NUMBER | ISSUE DATE | NAME | CLASS_ | SUBCLASS | | PROPRIATE |
| | AA | 5,574,206 | 11/12/1996 | Jolicoeur | | | 08 | 3/24/1994 |
| | AB | 5,489,742 | 02/06/1996 | Hammer, et al. | | | 06 | 5/27/1991 |
| | - | | | | | | | ···· |
| | <u> </u> | | FOREI | GN PATENT DOCUMENTS | | | l | |
| | | DOCUMENT | PUBLICATION | | <u> </u> | | TRA | NSLATION |
| | | NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | YES | NO |
| | AC | WO 00/39316 | 07/06/2000 | PCT | | | | |
| | AD | WO 91/04327 | 04/04/1991 | PCT | | | | |
| | AE | WO 92/20790 | 05/14/1992 | PCT | | | | |
| | | | | | | | | |
| | AF | WO 94/00568 | 01/06/1994 | | | | | |
| | AG | WO 97/49373 | 12/31/1997 | PCT | | | | |
| | AH | 0 528 360A2 | 08/13/1992 | Europe | _ | | | |
| | | | | | | | | |
| | | OTHER DOCU | MENTS (Includ | ding Author, Title, Journal-I | Date, Page N | lumber, Etc.) |) | |
| | ΑI | Wood, Philip A., | "Phenotype Ass | sessment: Are You Missing So | mething?," C | Comparative N | /ledicin | e, Vol. 50, |
| | • • • | No. 1. pp. 12-15. | February 2000 | • | | • | | |
| | AJ | No. 1, pp. 12-15, February 2000 Coffin, John M., et al., "Retroviruses," Retroviral Sequences, pp. 717-718, 1997 | | | | | | |
| | AK | Lorès Patrick et | al "Expression | of Human CD4 in Transgenio | Mice Does | Not Confer S | ensitivi | ty to Human |
| | AK | Immunodeficien | cy Virus Infection | n," Aids Research and Human | Retroviruse | s. Vol. 8. No. | 12. pp. | 2063-2071. |
| | | 1992 | by virus infectio | ii, Tildo Itoobaron ana Itanian | | -,, | - , , , , | , |
| | AL | Berthold, E., et al., "cis-Acting Elements in Human Immunodeficiency Virus Type I RNAs Direct Viral | | | | | | |
| | AL. | | | r Locations," Journal of Virolo | | | | |
| | AM | | | obiol. Rev. 9, pp. 100-117, 19 | | <u> </u> | | |
| | AN | Connor R et al | "Characterizat | ion of the Functional Propertie | s of env Gen | es from Long | -Term | Survivors of |
| | | Human Immuno | deficiency Virus | Type 1 Infection," Journal of | Virology, pa | tent, pp. 5306 | -5311, | August 1996 |
| | AO | De, S., et al., "Human Chorionic Gonadotropin Hormone Prevents Wasting Syndrome and Death in HIV-1 | | | | | | in HIV-1 |
| Transgenic Mice, "The Journal of Clinical Investigation, Vol. 99, No. 7, patent, pp. 1484-1491, April, 1997 | | | | | | | April, 1997 | |
| | | | | | | | | |
| EXAMINER | | | | | DATE C | ONSIDERED |) | |
| | | | | | | | | |
| EXAMINE | EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through | | | | | | | |
| citation if not in conformance and not considered. Include conv of this form with next communication to the applicant. | | | | | | | | |

^{*} All the foreign patents and publications that are not written in English language are accompanied by their respective English abstracts, which constitute concise explanation of relevance of the non-English patents and publications that satisfy the requirements of 37 C.F.R. §1.98(a)(3)(i), according to MPEP 609 III A(3).

| | | (6) | 188 | | | | | | |
|--|----|---|-----------------------------|--|-------------|---------------|---------|--------------------|--|
| FORM PTO-1449 US Dept. of Commerce | | | ATTORNEY DOCKET NO. | | SERIAL NO. | | | | |
| Patent and Trademark Office NOV 2 1 2003 | | | 4115-150 CIP DIV 10/645,451 | | | | | | |
| \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | APPLICANT | | | | | | |
| INFORMATION DISCLOSURE STATEMENT | | | BRYANT, Joseph L., et al. | | | | | | |
| | | | ADEIMARS. | | | | | | |
| (use several sheets if necessary) | | | FILING DATE | | GROUP | | | | |
| | | | August 21, 2003 Unknown | | | | | | |
| | | | Ų.S. | PATENT DOCUMENTS | | | | | |
| EXAMINER INITIAL | | PATENT NUMBER | ISSUE DATE | NAME | CLASS | SUBCLASS | | ING DATE PROPRIATE | |
| MITIAL | | NUMBER | ISSUE DATE | NAVIE | CLASS | SUBCLASS | | | |
| | + | | | ************************************** | | | | | |
| | | | FOREIC | ON PATENT DOCUMENTS | L | | | | |
| | | DOCUMENT | PUBLICATION | | | | TRA | NSLATION | |
| | | NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | YES | NO | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | ing Author, Title, Journal-D | ate, Page N | lumber, Etc.) | k . | | |
| | AP | Dickie, P., et al., Virology 185, pp. 109-119, 1991 | | | | | | | |
| | AQ | Dickie, Peter, "HIV Type 1 Nef Perturbs Eye Lens Development in Transgenic Mice," Aides Research and Human Retroviruses, Vol. 12, No. 3, 1996 | | | | | | | |
| | AR | Dickie, Peter, "Models of HIB Type 1 Proviral Gene Expression in Wild-Type HIV and MLV/HIV Transgenic Mice," Aids Research and Human Retroviruses, Vol. 12, No. 12, 1996 | | | | | | | |
| | AS | Finco, O., et al., "Induction of CD4 + T Cell Depletion in Mice Doubly Transgenic for HIV gp120 and Human CD4," Eur. J. Immunol. Vol. 27, no. 6, June 1997, pp 1319-1324, XP002114694 | | | | | | | |
| | AT | Hopp, T., "Human Chorionic Gonadotropin Hoodwinks Gallo," Nature Biotechnology 15, p. 834, October 1997 | | | | | | | |
| | AU | | - | PCT/US98/07821 dated 22 Sep | | | | | |
| | AV | Klotman, P., et al., "Transgenic Models of Human Immunodeficiency Virus Type-1" Curr. Top. Microbiol. Ummunol., Vol. 206, pp. 197-122, XP002114694, 1996 | | | | | | | |
| | AW | Leonard, J., et al., "Development of Disease and Virus Recovery in Transgenic Mice Containing HIV | | | | | | | |
| | AV | Proviral DNA," Research Articles, patent, pp. 1665-1670, December 23, 1988 | | | | | | | |
| | AX | Naldini et al., "Efficient Transfer, integration, and Sustained Long-term Expression of the Transgene in Adult Rat Brains Injected With a Lentiviral Vector," Proc. Natl. Acad. Sci. USA, Vol. 93, No. 21, pp. 11383-11388, XP002114690, October 15, 1996 | | | | | | | |
| | AY | | | | hogenesis o | f HIV-Associ | ated No | ephropathy in | |
| | | Transgenic Mice," Klaney International, Vol. 40, patent, pp. 759-772, 1994 | | | | | | | |
| | AZ | Santoro et al., "Growth Failure and Aids-like Cachexia Syndrome in HIV-1 Transgenic Mice," Virology, 201, p. 197, 1993 | | | | | | | |
| | BA | | | 100, pp. 32-39, 1997 | | | | | |
| | | | | | | | | | |
| EXAMINER | | | | DATE C | ONSIDERED | | | | |
| | | | | | <u> </u> | | ., . | | |
| | | | | r not citation is in conformance | | | | | |

^{*} All the foreign patents and publications that are not written in English language are accompanied by their respective English abstracts, which constitute concise explanation of relevance of the non-English patents and publications that satisfy the requirements of 37 C.F.R. §1.98(a)(3)(i), according to MPEP 609 III A(3).

| | | | COLP . | | · · · | CERTAL NA | | | |
|------------------------------------|--|--|--------------------------------|--------------------------------|---------------|-------------------|-----------|-----------------------|--|
| FORM PTO-1449 US Dept. of Commerce | | | ATTORNEY DOCKET NO. SERIAL NO. | | | | | | |
| Patent and Trademark Office | | | 4115-150 CIP DIV | | 10/645,451 | | | | |
| | | () | NOV 2 1 2003 C+ | | | l | | | |
| | | \ \\ | 2.4 | APPLICANT | | | | | |
| INFORMA' | TION D | ISCLOSURE ST. | ATEMENT | BRYANT, Joseph L., et al. | | | | | |
| (1 | 100 001101 | ral sheets if neces | PADEIN | FILING DATE | • | GROUP | | | |
| () | ise seve | iai sileets ii lieces | saly) | August 21, 2003 | | Unknown | | | |
| | | | August 21, 2003 | Chanowii | | | | | |
| | | | U.S. | PATENT DOCUMENTS | | | | | |
| EXAMINER | | PATENT ISSUE D. | | . NARED | 01.400 | | | ING DATE PROPRIATE | |
| INITIAL | | NUMBER | ISSUE DATE | NAME | CLASS | SUBCLASS IF APP | | PROPRIATE | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | - | | | | | | | | |
| | - | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | • | | | | | |
| | | | | <u> </u> | | | | <u>.c</u> | |
| | | | FOREI | GN PATENT DOCUMENT | <u> </u> | | | | |
| | | DOCUMENT | PUBLICATION | | | TRANSLATION | | | |
| | | NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | YES | NO | |
| | | | | | | | | | |
| | | , de la companya del companya de la companya del companya de la co | | | | | | | |
| | | | | | | | | | |
| | <u> </u> | OTHER DOCU | MENTS (Includ | ling Author, Title, Journal- | -Date, Page N | lumber, Etc.) | <u></u> _ | | |
| | BB | Whimer, et al., " | HIV-1 Expressio | n During Early Mammalian I | Development, | " AIDS, Vol. | 6, No. 1 | 0, 1992 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | - | | | | |
| | | | | | | | | | |
| | | | | _ | | | | | |
| EXAMINE | R | | | | DATE C | ONSIDERED | | | |
| | | | | | | | | | |
| EXAMINE | R: Initia | al if citation consi | idered, whether o | r not citation is in conformar | nce with MPE | P § 609; Drav | v line th | rough | |
| citation if n | ot in cor | nformance and no | t considered. Inc | clude copy of this form with a | next communi | cation to the a | pplican | t. | |

^{*} All the foreign patents and publications that are not written in English language are accompanied by their respective English abstracts, which constitute concise explanation of relevance of the non-English patents and publications that satisfy the requirements of 37 C.F.R. §1.98(a)(3)(i), according to MPEP 609 III A(3).